

[CLAIMS]

1. A method of producing a biomaterial measuring device, comprising:

5 forming a plurality of reaction elements, to which an assay reagent is applied, on a first substrate;

cutting the resulting first substrate in a unit of individual reaction element; and

10 attaching a first substrate piece, which is formed by cutting the resulting first substrate in the unit of individual reaction element, to a predetermined portion of a second substrate.

2. The method as set forth in claim 1, wherein a plurality of first substrate pieces, which are formed by 15 cutting the resulting first substrate in the unit of individual reaction element, is attached to the second substrate.

3. The method as set forth in claim 1, wherein the assay reagent is used to measure a biomaterial through an 20 optical assay, and light penetrates through the portion of the second substrate, to which the first substrate piece is attached.

4. The method as set forth in claim 3, wherein the

assay reagent is layered on a membrane so as to be applied to a first substrate, or is directly applied to the first substrate.

5. The method as set forth in claim 3, further comprising forming means for focusing or defocusing light, on the portion of the second substrate, to which the first substrate piece is attached.

6. The method as set forth in claim 1, wherein the second substrate is made of any one selected from the group 10 consisting of plastic, glass, and semiconductor wafer.

7. The method as set forth in claim 1, wherein the assay reagent is used to measure a biomaterial through an electrochemical assay, and the formation of the plurality of reaction elements comprises:

15 forming at least two first electrodes on a first side of the first substrate; and

applying the assay reagent through the first electrodes.

8. The method as set forth in claim 7, further 20 comprising:

forming a second electrode on a second side of the first substrate, which is opposite to the first side; and

electrically connecting at least one of the first electrodes on the first side to the second electrode on the second side.

9. The method as set forth in claim 1, further
5 comprising mounting a dehumidifying agent for removing moisture, which is introduced from an environment to the assay reagent, on a predetermined portion of the biomaterial measuring device while the dehumidifying agent is isolated from the environment.

10 10. A method of producing a biomaterial measuring device, comprising:

forming a plurality of first reaction elements, to which a first assay reagent is applied, on a first substrate;

15 forming a plurality of second reaction elements, to which a second assay reagent is applied, on a second substrate;

cutting the first and second substrates in a unit of individual reaction element; and

20 attaching first and second substrate pieces, which are formed by cutting the first and second substrates in the unit of individual reaction element, to predetermined portions of a third substrate.

11. A biomaterial measuring device, comprising:
a first substrate;
an assay reagent which is applied on an entire first
side of the first substrate to form a reaction element; and
5 a second substrate, on which the first substrate is
mounted to enable the assay reagent to form a path for
introducing a biomaterial therethrough.

12. The biomaterial measuring device as set forth in
claim 11, wherein the assay reagent is used to measure the
10 biomaterial through an optical assay, and light penetrates
through a portion of the second substrate, to which the
first substrate is attached.

13. The biomaterial measuring device as set forth in
claim 12, wherein the assay reagent is layered on a
15 membrane so as to be applied to the first substrate, or is
directly applied to the first substrate.

14. The biomaterial measuring device as set forth in
claim 12, further comprising means for focusing or
defocusing light, which is formed on the portion of the
20 second substrate, to which the first substrate is attached.

15. The biomaterial measuring device as set forth in
claim 11, wherein the second substrate is made of any one

selected from the group consisting of plastic, glass, and semiconductor wafer.

16. The biomaterial measuring device as set forth in
claim 11, wherein the reaction element includes at least
5 two first electrodes formed on the first side of the first
substrate, and the assay reagent is used to measure the
biomaterial through an electrochemical assay and is applied
through the first electrodes.

10 17. The biomaterial measuring device as set forth in
claim 16, further comprising a second electrode which is
formed on a second side of the first substrate, opposite to
the first side, and which is electrically connected to at
least one of the first electrodes on the first side.

15 18. The biomaterial measuring device as set forth in
claim 17, wherein the first electrodes on the first side
are electrically connected to the second electrode on the
second side through a via hole which is formed through the
first substrate, a wall of which is coated with a
conductor.

20 19. The biomaterial measuring device as set forth in
claim 11, further comprising a dehumidifying agent which is
mounted on a predetermined portion of the biomaterial

measuring device so that the dehumidifying agent is isolated from an environment and which removes moisture introduced from the environment to the assay reagent.